Applicant: Nafizal Hossain Serial No.: 10/575,522 Filed: April 12, 2006

Page : 2 of 28

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A compound of formula

$$(R^{1})_{m} \xrightarrow{X-Y} (CH_{2})_{q} \xrightarrow{R^{4}} R^{6} \xrightarrow{R^{6}} (R^{9})_{t}$$

$$(R^{2})_{n} (R^{2})_{n} (I)$$

wherein

m is 0, 1, 2, 3 or 4;

each R¹ independently represents halogen, cyano, hydroxyl, C₁-C₆ alkyl,

C₁-C₆ haloalkyl, C₁-C₆ alkoxy or sulphonamido;

either X represents a bond; and Y represents -O-, and Z represents -CH2;

n is 0, 1 or 2;

each R² independently represents halogen or C₁-C₆ alkyl;

q is 1;

R³ represents -NHC(O)R¹⁰, -C(O)NR¹¹R¹² or -COOR^{12a};

R⁴, R⁵, R⁶, and R⁷ and R⁸-each independently represent a hydrogen atom;

R⁸ represents a hydrogen or C₁-C₆ alkyl group;

t is 0, 1 or 2;

each R^9 independently represents halogen, cyano, hydroxyl, carboxyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxycarbonyl, C_1 - C_6 haloalkyl, or C_1 - C_6 alkyl optionally substituted by at least one substituent selected from carboxyl and C_1 - C_6 alkoxycarbonyl;

Applicant: Nafizal Hossain Attorney's Docket No.: 06275-503US1

Serial No.: 10/575,522 Filed: April 12, 2006

Page : 3 of 28

 R^{10} represents a group C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_3 - C_6 cycloalkyl, adamantyl, C_5 - C_6 cycloalkenyl, phenyl or a saturated or unsaturated 5- to 10-membered heterocyclic ring system comprising at least one ring heteroatom selected from nitrogen, oxygen and sulphur, each of which may be optionally substituted by one or more substituents independently selected from nitro, hydroxyl, oxo, halogen, carboxyl, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkylthio, C_1 - C_6 alkylcarbonyl, C_1 - C_6 alkoxycarbonyl, phenyl and -NHC(O)- R^{13} , or

R¹⁰ represents a group -NR¹⁴R¹⁵ or -O-R¹⁶;

 R^{11} and R^{12} each independently represent (i) a hydrogen atom, (ii) a 3- to 6-membered saturated or unsaturated ring optionally comprising at least one ring heteroatom selected from nitrogen, oxygen and sulphur and optionally further comprising a bridging group, the ring being optionally substituted with at least one substituent selected from halogen, hydroxyl, C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl and C_1 - C_6 haloalkyl,

(iii) a C_1 - C_6 alkyl group optionally substituted by at least one substituent selected from halogen, amino, hydroxyl, C_1 - C_6 haloalkyl, carboxyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxycarbonyl, C_1 - C_6 alkylcarbonylamino and a 3- to 6-membered saturated or unsaturated ring optionally comprising at least one ring heteroatom selected from nitrogen, oxygen and sulphur and optionally further comprising a bridging group, the ring being optionally substituted with at least one substituent selected from halogen, hydroxyl, oxo, C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl and C_1 - C_6 haloalkyl, or (iv) C_1 - C_6 alkylsulphonyl,

OI

 R^{11} and R^{12} together with the nitrogen atom to which they are attached form a 4- to 7-membered saturated heterocyclic ring that optionally further comprises a ring nitrogen, oxygen or sulphur atom and that is optionally fused to a benzene ring to form a 8- to 11-membered ring system, the heterocyclic ring or ring system being optionally substituted with at least one substituent selected from halogen, hydroxyl, amido, C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxycarbonyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkylamino, di- C_1 - C_6 alkylamino, C_1 - C_6 alkylamino, di- C_1 - C_6 alkylaminocarbonyl, di-

Applicant: Nafizal Hossain Serial No.: 10/575,522 Filed: April 12, 2006

Page : 4 of 28

 C_1 - C_6 alkylaminocarbonyl, phenyl, halophenyl, phenylcarbonyl, phenylcarbonyloxy and hydroxydiphenylmethyl;

 R^{12a} represents a hydrogen atom or a C_1 - C_6 alkyl group;

R¹³ represents a C₁-C₆ alkyl, amino or phenyl group;

 R^{14} and R^{15} each independently represent a hydrogen atom, or a group C_1 - C_6 alkyl, C_1 - C_6 alkylsulphonyl, phenyl or a saturated or unsaturated 5- to 10-membered heterocyclic ring system comprising at least one ring heteroatom selected from nitrogen, oxygen and sulphur, each group being optionally substituted as defined above for R^{10} , or

R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a 4- to 7-membered saturated heterocyclic ring that optionally further comprises a ring nitrogen, oxygen or sulphur atom, the heterocyclic ring being optionally substituted by at least one hydroxyl; and

 R^{16} represents a hydrogen atom, or a group C_1 - C_6 alkyl, phenyl or a saturated or unsaturated 5- to 10-membered heterocyclic ring system comprising at least one ring heteroatom selected from nitrogen, oxygen and sulphur, each group being optionally substituted as defined above for R^{10} ;

or a pharmaceutically acceptable salt thereof.

2. (Original) A compound according to claim 1, wherein X and Y have the meanings shown in the following table:

X	Y
bond	0
0	bond
CH ₂	bond
bond	CH ₂

Claims 3-4 are cancelled.

Applicant: Nafizal Hossain Serial No.: 10/575,522 Filed: April 12, 2006

Page : 5 of 28

5. (Previously presented) A compound according to claim 1, wherein R^3 represents -NHC(O) R^{10} or -C(O)N $R^{11}R^{12}$.

- 6. (Previously presented) A compound according to claim 1, wherein t is 1 and R^9 is located in the *para* position with respect to R^3 .
- 7. (Currently Amended) A compound according to claim 1 selected from:

 $2-(\{(2S)-3-[(5-Chloro-3H-spiro[1-benzofuran-2,1'-cyclohexan]-4'-yl)amino]-2-hydroxypropyl\}oxy)-4-hydroxy-N-methylbenzamide,$

 $N-2-(\{(2S)-3-[5-Chloro-3H-spiro[1-benzofuran-2,1'-cyclohexan]-4'-yl)amino]-2-hydroxypropyl\}oxy)-4-fluorophenyl]acetamide,$

2-({(2S)-3-[(5-Chloro-3*H*-spiro[1-benzofuran-2,1'-cyclohexan]-4'-yl)amino]-2-hydroxypropyl}oxy)-*N*-methylbenzamide,

 $\label{eq:N-2-2} N-[2-(\{(2S)-3-[(5-Chloro-3H-spiro[1-benzofuran-2,1'-cyclohexan]-4'-yl)amino]-2-hydroxypropyl\}oxy)-4-hydroxyphenyl] acetamide,$

N-[2-({(2S)-3-[(5-Chloro-3H-spiro[1-benzofuran-2,1'-cyclohexan]-4'-yl)amino]-2-hydroxy-2-methylpropyl}oxy)-4-hydroxyphenyl]acetamide (trifluoro acetate), and pharmaceutically acceptable salts and solvates of any one thereof.

- 8. (Withdrawn) A process for the preparation of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as defined in claim 1 which comprises,
- (a) reacting a compound of formula

$$X-Y$$
 $(CH_2)_q$
 NH_2
 $(R^1)_m$
 $(R^2)_n$
 (II)

wherein m, R¹, n, R², q, X, Y and Z are as defined in formula (I), with a compound of formula

Applicant: Nafizal Hossain Serial No.: 10/575,522 Filed: April 12, 2006

Page : 6 of 28

wherein R³, R⁴, R⁵, R⁶, R⁷, R⁸, t and R⁹ are as defined in formula (I); or

(b) reacting a compound of formula

$$X-Y \xrightarrow{(CH_2)_q} N \xrightarrow{R^4} R^6$$

$$(R^1)_m (R^2)_n (IV)$$

wherein m, R¹, n, R², q, X, Y, Z, R⁴, R⁵, R⁶, R⁷ and R⁸ are as defined in formula (I), with a compound of formula

HO
$$(R^9)_t$$

wherein R^3 , t and R^9 are as defined in formula (I), in the presence of a suitable base; or (c) when R^3 represents -NHC(O) R^{10} , reacting a compound of formula

$$(R^{1})_{m}$$

$$X-Y$$

$$(R^{2})_{n}$$

$$(R^{2})_{n}$$

$$(R^{2})_{n}$$

$$(R^{3})_{n}$$

$$(R^{2})_{n}$$

$$(VI)$$

Applicant: Nafizal Hossain Serial No.: 10/575,522 Filed: April 12, 2006

Page : 7 of 28

wherein m, R¹, n, R², q, X, Y, Z, R⁴, R⁵, R⁶, R⁷, R⁸, t and R⁹ are as defined in formula (I), with a compound of formula

$$L^{1} \longrightarrow R^{10}$$
O
(VII)

wherein L¹ represents a leaving group and R¹⁰ is as defined in formula (I); or

(d) when R³ represents -C(O)NR¹¹R¹², reacting a compound of formula

$$X-Y$$
 $(CH_2)_q$
 N
 R^4
 R^6
 R^7
 $C(O)L^2$
 $(R^1)_m$
 $(R^2)_n$

wherein L² represents a leaving group and m, R¹, n, R², q, X, Y, Z, R⁴, R⁵, R⁶, R⁷, R⁸, t and R⁹ are as defined in formula (I), with a compound of formula (IX), NHR¹¹R¹², wherein R¹¹ and R¹² are as defined in formula (I); or

(e) when R³ represents -NHC(O)R¹⁰, R¹⁰ represents -NR¹⁴R¹⁵ and R¹⁴ and R¹⁵ both represent hydrogen, reacting a compound of formula (VI) as defined in (c) above with potassium cyanate;

and optionally after (a), (b), (c), (d) or (e) forming a pharmaceutically acceptable salt or solvate.

- 9. (Previously Presented) A pharmaceutical composition comprising a compound of formula (I) or a pharmaceutically acceptable salt thereof as claimed in claim 1 in association with a pharmaceutically acceptable adjuvant, diluent or carrier.
- 10. (Withdrawn) A process for the preparation of a pharmaceutical composition as claimed in claim 9 which comprises mixing a compound of formula (I) or a pharmaceutically acceptable

Applicant: Nafizal Hossain Attorney's Docket No.: 06275-503US1

Serial No.: 10/575,522 Filed: April 12, 2006

Page : 8 of 28

salt or solvate thereof as claimed in claim 1 with a pharmaceutically acceptable adjuvant, diluent or carrier.

11. (Cancelled)

12. (Withdrawn) A method of treating a disease or condition in which modulation of chemokine receptor activity is beneficial, the method comprising administering to a patient in need thereof a therapeutically effective amount of a compound of formula (I) or a

pharmaceutically acceptable salt or solvate thereof as claimed in claim 1.

13. (Withdrawn) A method of treating rheumatoid arthritis, the method comprising administering to a patient in need thereof a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in claim 1.

- 14. (Withdrawn) A method of treating chronic obstructive pulmonary disease, the method comprising administering to a patient in need thereof a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in claim 1.
- 15. (Withdrawn) A method of treating asthma, the method comprising administering to a patient in need thereof a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in claim 1.
- 16. (Withdrawn) A method of treating multiple sclerosis, the method comprising administering a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in claim 1.

Applicant: Nafizal Hossain Attorney's Docket No.: 06275-503US1

Serial No.: 10/575,522 Filed: April 12, 2006

Page : 9 of 28

17. (Withdrawn) A method of treating an inflammatory disease which comprises administering to a patient in need thereof a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in claim 1.

18. (Withdrawn) A method of treating an airways disease which comprises administering to a patient in need thereof a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in claim 1.